## Year 3, Autumn Term 1

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| Weeks | Strand and progression focus | KPI’s | Key Vocabulary | Core skill |
|  | **MAS** Mental addition and subtraction; **PRA** Problem solving, reasoning and algebra  **Addition and subtraction**  Weeks 1 and 2 focus on revising the understanding and use of place value and number facts in mental addition and subtraction. | Use multiple of 5 and 10 bonds to 100 to solve additions and subtractions; add and subtract 1-digit numbers to and from 2-digit numbers | Number bonds  Number facts  Multiple  Doubling  Even and odd  1-digit number  2-digit number  System  Addition  Subtraction | Identify and represent 1 and 2 digit numbers  Count up and down in 2s, 5s and 10s  Identify mathematical symbols  Add and subtract by combining and separating groups |
|  | **NPV** Number and place value; **MAS** Mental addition and subtraction; **PRA** Problem solving, reasoning and algebra  **Addition and subtraction**  Weeks 1 and 2 focus on revising the understanding and use of place value and number facts in mental addition and subtraction. | Compare and order 2- and 3- digit numbers; count on and back in 10s and 1s; add and subtract 2-digit numbers; solve problems using place value | Multiple  Number bonds  Number facts  Matching  Multiple of 5  Multiple of 10  Method  Hundreds, tens and ones  Patterns  System | Identify and represent 1 and 2 digit numbers  Count up and down in 2s, 5s and 10s  Identify and interpret key vocabulary linked to problem solving |
|  | **MMD** Mental multiplication and division; **PRA** Problem solving, reasoning and algebra  **Multiplication and division**  Week 3 focuses on key multiplication and division facts and on doubling and halving. | Know multiplication and division facts for the 5, 10, 2, 4 and 3 times-tables; doubling and halving  To use written methods for multiplication and division | Division fact  Multiplication fact  Multiple  Number sentence  Even and odd  Double and half  Teens number | Make double by combining  Half amounts by splitting  Count on and back in 2,3,4,5,10- using concrete and pictorial methods |

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| 4 | **PRA** Problem solving, reasoning and algebra; **MEA** Measurement; **GPS** Geometry: properties of shapes; **STA** Statistics  **Time; 3D shapes**  Week 4 focuses on telling the time with increasing accuracy, and identifying, describing and sorting 3D shapes. | Know and understand the calendar, including days, weeks, months, years; tell the time to the nearest 5 minutes on analogue and digital clocks; know the properties of 3D shapes | Calendar  Date  Day  Fortnight  Leap year  Month  Week  Year  Analogue  Digital  Half past  Quarter past and to  O’clock  Edge  Face  Venn diagram  Vertices  Vertex  Surface | Identify 3D shapes and give their properties  Recall key facts about days, months, weeks, years  Be read an analogue and digital clock |
| **5** | **NPV** Number and place value; **MAS** Mental addition and subtraction; **PRA** Problem solving, reasoning and algebra  **Place value; difference**  Week 5 focuses on placing 2- and 3-digit numbers on a line and using an empty number line to find differences. | Comparing, ordering and understanding place value of 2- and 3-digit numbers; subtracting from 2-digit numbers; using prediction to estimate calculations | Halfway  Hundreds  More than  Less than  Rounding  Calculate  Difference  2-digit number  3-digit number  4-digit number | Estimate calculations  Identify and understand the values of 2 and 3 digit numbers  Draw and label a number-line |

## Year 3, Autumn Term 2

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| Week | Strand and progression focus | KPI’s | Key Vocabulary | Core skills |
| 6 | **MMD** Mental multiplication and division; **FRP** Fractions, ratio and proportion; **PRA** Problem solving, reasoning and algebra  **Multiplication and division; fractions**  Week 6 focuses on doubling and halving, and understanding a half and other unit fractions. | Doubling and halving numbers up to 100 using partitioning; understanding fractions and fractions of numbers | Double  Multiplying  Partition  Equal  Fraction  Eighth  Half  Quarter  Sixth  third | Partition numbers in different ways  Know that a fraction is part of a whole  Double by combining and half by splitting |
| 7 | . **MEA** Measurement; **PRA** Problem solving, reasoning and algebra; **MAS** Mental addition and subtraction  **Place value in addition and subtraction**  Week 7 focuses on understanding place value, including in money, and on using partitioning in adding and subtracting. | Use money to add and subtract and record using the correct notation and place value; add and subtract 2-digit numbers using partitioning; add three 2-digit numbers by partitioning and recombining. | Fewest  Pence  Pounds  Number bonds  Partitioning  Tens and ones | Identify values of coins and notes  Partition 2 and 3 digit numbers  Use concrete, pictorial and abstract resources |
| 8 | **MEA** Measurement; **GPS** Geometry: properties of shapes  **Length; capacity**  Week 8 focuses on the SI units and measurement of length and capacity. | Choose an appropriate instrument to measure a length and use a ruler to estimate, measure and draw to the nearest centimetre; know 1 litre = 1000 ml; estimate and measure capacity in millilitres | Centimetre  Height  Length  Measure  Measurement  Metre  Metre rule  Millimetre  Ruler  Tape measure  Capacity  Estimate | Know to start measuring at 0  Know how to use measuring equipment correctly  Estimate and give sensible predictions |
| 9 | **NPV** Number and place value; **MAS** Mental addition and subtraction; **PRA** Problem solving, reasoning and algebra  **Place value; difference**  Week 9 focuses on using number lines to compare and round numbers and to find differences. | Place 2- and 3-digit numbers on a number line; round 3-digit numbers to nearest 100; use counting up to do mental subtractions with answers between 10 and 20, 10 and 30, and either side of 100 | Landmark number  Multiples of 10  Multiples of 100  Number line  Rounding  Difference  Nearest | Draw and label a number line.  Count in order to 100. |
| 10 | **MMD** Mental multiplication and division; **PRA** Problem solving, reasoning and algebra; **MAS** Mental addition and subtraction  **Revision**  Week 10 provides revision of key calculation strategies and their use in word problems. | Revise times-tables learned and derive division facts; perform division with remainders; choose a mental strategy to solve additions and subtractions; solve word problems | Array  Divide  Division fact  Multiplication fact  Multiply  Remainder  Multiple  Calculation  Addition  Subtraction | Memorise times tables and division facts.  Count in multiples.  Identify and interpret key vocabulary linked to problem solving. |

## Year 3, Spring Term 1

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| Week | Strand and progression focus | KPI’s | Key Vocabulary | Core skills |
| 11 | **NPV** Number and place value; **MAS** Mental addition and subtraction; **PRA** Problem solving, reasoning and algebra  **Place value**  Week 11 focuses on embedding a thorough understanding of place value and properties of numbers. | Rehearse place value in 3-digit numbers, order them on a number line and find a number in between; compare number sentences; solve additions and subtractions using place value; multiply and divide by 10 (whole number answers); count in steps of 10, 50 and 100. | Number line  Digit  Place holder  Multiply  Divide  Zero  Sequence  Pattern | Draw and label a number line.  Count in order to and above 100.  Use place value to multiply and divide by 10. |
| 12 | **MAS** Mental addition and subtraction; **MMD** Mental multiplication and division; **STA** Statistics; **PRA** Problem solving, reasoning and algebra  **Addition; times tables**  Week 12 focuses on using partitioning in addition; and on the 2, 3, 4, 5, 8 and 10 times tables. | Add pairs of 2-digit numbers using partitioning (crossing 10s, 100 or both) and then extend to add two 3-digit numbers (not crossing 1000); recognise and sort multiples of 2, 3, 4, 5, and 10; double the 4 times-table to find the 8 times-table; derive division facts for the 8 times-table; multiply and divide by 4 by doubling or halving twice | Partition  Total  Hundreds, tens and ones  Double  Half  Multiple  Venn Diagram  Compare  Pattern  Rule | Partition 2 and 3 digit numbers  Recall all known times table facts  Use doubling and halving of known facts |
| 13 | **FRP** Fractions, ratio and proportion; **PRA** Problem solving, reasoning and algebra  **Fractions**  Week 13 focuses on fractions as numbers, finding equivalent fractions, placing fractions on a line, and on fractions as operators, finding fractions of amounts. | Identify 1/2s, 1/3s, 1/4,s 1/6s, and 1/8s; realise how many of each make a whole; find equivalent fractions; place fractions on a 0 to 1 line; find fractions of amounts | Denominator  Numerator  Tenths  Unit fractions  Non-unit fractions  Equivalent fractions  Two quarters  Two halves  Third  Sixth  Eighth | Know a fraction is part of a whole.  Use a fraction wall to find equivalent fractions.  Use resources to find fractions of amounts. |
| 14 | **GPS** Geometry: properties of shapes; **GPD** Geometry: position and direction; **MEA** Measurement  **Angles; 2D shapes**  Week 14 focuses on angles, including right angles, measurement of turn, and the ° symbol; and on properties of 2D shapes and finding perimeters. | Recognise right angles and know they are 90°; understand angles are measured in degrees; recognise ° as the symbol for the measurement of degrees; name and list simple properties of 2D shapes; begin to understand and use the term perimeter to mean the length/distance around the edge (border) of a 2D shape; begin to calculate using a ruler; know a right angle is a quarter turn; know 360° is a full turn; begin to understand angles and identify size of angles in relation to 90° | Angle  Right angle  Arc  Protractor  Turn  Perimeter  Length  Edge  Quadrilateral | Know how to use a protractor  Know what an angle is and how to measure it  Use the term perimeter and recognise how to calculate it  Recognise different angles |
| 15 | **NPV** Number and place value; **MAS** Mental addition and subtraction  **Addition and subtraction**  Weeks 15, 16 and 17 focus on the way a secure understanding of place value underpins rounding, mental addition and | Place 3-digit numbers on empty 100 number lines; begin to place 3-digit numbers on 0-1000 landmarked and empty number lines; round 3-digit numbers to the nearest ten and to the nearest hundred; use counting up as a strategy to perform mental subtraction (Frog); subtract pounds and pence from five pounds; use counting up (Frog) as a strategy to perform mental subtraction of amounts of money; subtract pounds and pence from ten pounds | Half way  Quarter  Three quarters  Counting on  Counting back  Difference  Pounds  Price  Change | Draw a number line and label it.  Count to 1000  Recognise currency, notes and coins.  Link place value to money |

## Year 3, Spring Term 2

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| Week | Strand and progression focus | KPIs | Key Vocabulary | Core skills |
| 16 | **NPV** Number and place value; **PRA** Problem solving, reasoning and algebra; **WAS** Written addition and subtraction  **Addition and subtraction**  Weeks 15, 16 and 17 focus on the way a secure understanding of place value underpins rounding, mental addition and subtraction, and column methods of addition. | Understand place-value in 3-digit numbers; separate 3-digit numbers into hundreds, tens, and ones; add two 3-digit numbers using vertical written addition (expanded); add 2- and 3- digit numbers using vertical written addition (expanded) | Hundreds  Calculate  Integer  Product  Partition  Hundreds, tens and ones  Rule  Column addition | Partition 3 digit numbers  Add using the expanded written methods |
| 17 | **MAS** Mental addition and subtraction; **WAS** Written addition and subtraction; **PRA** Problem solving, reasoning and algebra  **Addition and subtraction**  Weeks 15, 16 and 17 focus on the way a secure understanding of place value underpins rounding, mental addition and subtraction, and column methods of addition. | Add two 2-digit numbers mentally; add 2-digit to 3-digit numbers mentally using place value and rounding; add two 3-digit numbers using expanded written method (answers under 1000); begin to move tens and hundreds moving towards formal written addition; add two 3-digit numbers using expanded column addition; investigate patterns in numbers when adding them; choose to solve addition using a mental method or expanded column addition (written method) | Round  Partition  Mental addition  Exchange  Hundreds, tens and ones  Digit  Symmetrical  Pattern  Relationship | Read 2 and 3 digit numbers.  Count to 1000  Use expanded written method.  Use mathematical language to describe patterns.  Discuss pros and cons of different methods. |
| 18 | **MEA** Measurement  **Time**  Week 18 focuses on time-telling on digital and analogue clocks, and the calculation of time intervals; these are used in solving word problems. | Tell the time to the nearest minute on analogue and digital clocks (minutes past and minutes to); time events in minutes and seconds; find a time after a given interval (not crossing the hour); calculate time intervals; solve word problems involving time | O'clock  Past  To  Digital  Analogue  Hour  Minute  Clock/ hands  Minutes  Seconds  Faster/slower  Start/finish | Read digital and analogue clocks.  Count in 5s.  Recognise and interpret vocabulary linked to problem solving. |
| 19 | **NPV** Number and place value; **MAS** Mental addition and subtraction; **PRA** Problem solving, reasoning and algebra  **Place value; subtraction**  Week 19 focuses on using number lines to facilitate an understanding of place value in 3-digit numbers, and as an efficient method of performing subtraction involving 3-digit numbers. | Order 3-digit numbers and find numbers between; solve subtractions of 3-digit - 3-digit numbers using counting up (Frog); use counting up and counting back as strategies to perform mental subtractions; choose to solve a given subtraction by counting up or counting back | In-between  Difference  Count on  Count back  Pattern  Method | Count to 1000  Recognise the value of digits in 3 digit numbers  Discuss the pros and cons of counting up or back. |
| 20 | **MMD** Mental multiplication and division; **WMD** Written multiplication and division; **PRA** Problem solving, reasoning and algebra  **Multiplication and division**  Week 20 focuses on developing multiplication strategies using doubling and halving and the grid method; division is related to multiplication and this relationship is used to solve missing number problems. | Double and halve numbers up to 100 by partitioning; solve word problems involving doubling and halving; multiply numbers between 10 and 25 by 1-digit numbers using the grid method; divide multiples of 10 by 1-digit numbers using known tables facts; see the relation between multiplication and division | Multiply  More than  Less than  Double and half  Pounds  Pence  Inverse | Partition 3 digit numbers  Interpret and use the language of problem solving  Use an efficient concrete and pictorial grid method to multiply  Use an efficient method for division including concrete and pictorial |

## Year 3, Summer Term 1

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| Week | Strand and progression focus | KPIs | Key Vocabulary | Core Skills |
| 21 | **MAS** Mental addition and subtraction; **PRA** Problem solving, reasoning and algebra; **FRP** Fractions, ratio and proportion  **Addition and subtraction**  Week 21 focuses on securing understanding of addition and subtraction and rehearsing sound mental strategies, extending to adding and subtracting fractions. | Add 3-digit and 1-digit numbers mentally, using number facts; subtract 1-digit numbers from 3-digit numbers mentally using number facts; add and subtract multiples of 10 by counting on and back in 10s and using number facts to cross 100s; compare and order fractions with the same denominator; begin to recognise equivalences of 1/2; add and subtract fractions with the same denominator | Number fact  Number bond  Compare  Fraction  Numerator  Denominator  Half  Quarter  Fifth  Sixth | Count forwards and backwards to and from 1000.  Recall number facts. Understand place value to add and subtract 10s.  Know a fraction is part of a whole. Use a fraction wall. |
| 22 | **MMD** Mental multiplication and division; **PRA** Problem solving, reasoning and algebra; **WMD** Written multiplication and division  **Multiplication and division**  Weeks 22 and 23 focus on developing understanding and skills in multiplication and division, including using tables facts to solve scaling problems, multiplications using the grid method, and divisions using chunking. | Use function machines to multiply by 2, 3, 4, 5 and 8 and understand the inverse; use scaling to multiply heights and weights by 2, 4, 8, 5 and 10; use known facts to multiply multiples of 10 by 2, 3, 4 and 5; multiply numbers between 10 and 30 by 3, 4 and 5 using the grid method; multiply 2-digit numbers by 3, 4, 5 and 8 using the grid method | Function  Input  Output  Inverse  Multiple  Double  Tens and Ones  Multiply  Grid Method  Commutative  Partition | Use a function machine.  Know 2,3,4,5 and 8 times tables.  Discuss and explain inverse.  Use place value to multiply by 10.  Use grid method. |
| 23 | **MMD** Mental multiplication and division; **WMD** Written multiplication and division  **Multiplication and division**  Weeks 22 and 23 focus on developing understanding and skills in multiplication and division, including using tables facts to solve scaling problems, multiplications using the grid method, and divisions using chunking. | Divide without remainders, just beyond the 12th multiple; division using chunking, with remainders; use the grid method to multiply 2-digit numbers by 3, 4 ,5 and 8; begin to estimate products | Inverse  Remainder  Commutative  Product  Rounding  Estimate  Approximate | Divide using chunking.  Know multiplication facts and where one is left over.  Use grid method  Know 2,3,4,5 and 8 times tables. |
| 24 | **STA** Statistics; **PRA** Problem solving, reasoning and algebra; **MEA** Measurement  **Statistics and data; weight**  Week 24 focuses on drawing and interpreting pictograms and bar graphs with different scales, and on using these to record and analyse data in the context of measuring weights. | Draw and interpret bar charts and pictograms where one square/symbol represents two units; compare and measure weights in multiples of 100g; know how many grams are in a kilogram; estimate and weigh objects to the nearest 100g; draw and interpret bar charts where one square represents one hundred units | Pictogram  Total  Weight  Mass  Balance  Chart  Scale | Hold and use a ruler correctly.  Use and interpret symbols to represent different amounts.  Recall facts related to weight. |
| 25 | **MAS** Mental addition and subtraction; **WAS** Written addition and subtraction; **PRA** Problem solving, reasoning and algebra  **Addition and subtraction**  Weeks 25, 26 and 27 focus on mental and written addition and subtraction, including mental strategies, column addition, subtracting by counting up, and choosing appropriate methods to solve problems. | Add 3-digit and 2-digit numbers using mental strategies; add two 3-digit numbers using mental strategies or by using column addition; use reasoning, trial and improvement to solve problems involving more complex addition | Partition  Estimate  Tens and ones  Compact column addition  Expanded column addition  Estimate  Round | Read and write 2 and 3 digit numbers. Use column addition with 3 digits.  Use language of problem solving. Trial and error.  Select the most appropriate method to solve a problem. |

## Year 3, Summer Term 2

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| Week | Strand and progression focus | KPIs | Key Vocabulary | Core Skills |
| 26 | **WAS** Written addition and subtraction; **MAS** Mental addition and subtraction  **Addition and subtraction**  Weeks 25, 26 and 27 focus on mental and written addition and subtraction, including mental strategies, column addition, subtracting by counting up, and choosing appropriate methods to solve problems. | Use column addition to add three 2- and 3-digit numbers together and four 2- and 3-digit numbers together; subtract 3-digit numbers using counting up; solve word problems choosing an appropriate method | Partitioning  Estimate  Expanded  Number bonds  Number facts  Multiple  Altogether  Total  calculation | Read and write 2 and 3 digit numbers.  Use column addition  Subtract by counting up.  Count to 1000  Select the most appropriate method to solve a problem.  Interpret and use vocabulary linked to problem solving. |
| 27 | **WAS** Written addition and subtraction; **MEA** Measurement; **MAS** Mental addition and subtraction; **PRA** Problem solving, reasoning and algebra  **Addition and subtraction**  Weeks 25, 26 and 27 focus on mental and written addition and subtraction, including mental strategies, column addition, subtracting by counting up, and choosing appropriate methods to solve problems. | Add 3-digit numbers using column addition; solve problems involving measures; solve subtractions of 3-digit numbers using counting up on a line and work systematically to find possibilities; choose an appropriate strategy to solve addition or subtraction | Perimeter  Width  Length  Difference  Estimate  Rounding  Multiple  Adjust | Read and write 3 digit numbers  Use and understand language linked to measures.  Persevere to find all possibilities. Trial and error. Select appropriate methods. |
| 28 | **GPS** Geometry: properties of shapes; **MEA** Measurement  **2D shapes; time**  Week 28 focuses on developing understanding and vocabulary of shape and angle, including measuring perimeters; and on telling the time 5, 10, 20 minutes later using am/pm and 24-hour clock. | Identify, name and draw horizontal, vertical, perpendicular, parallel and diagonal lines, angles and symmetry in 2D shapes; measure the perimeter of 2D shapes by counting and measuring with a ruler; tell the time on analogue and digital clocks to the minute, begin to tell the time 5, 10, 20 minutes later, recognise am and pm and 24-hour clock times | Horizontal  Vertical  Perpendicular  Parallel  Analogue  Digital  Convert  Half past  Quarter past  Quarter to | Hold and use a ruler correctly.  Name 2d shapes and use their properties to discuss.  Read an analogue and digital clock.  Use a 24 hour clock  Understand and use time related language. |
| 29 | **WMD** Written multiplication and division; **PRA** Problem solving, reasoning and algebra; **MMD** Mental multiplication and division; **FRP** Fractions, ratio and proportion; **DPE** Decimals, percentages and their equivalence to fractions  **Multiplication and division; fractions**  Week 29 focuses on consolidating written multiplication and division strategies, securing understanding of the relation between division and fractions, and moving to finding tenths of amounts. | Use the grid method to multiply 2-digit numbers by 3, 4, 5, 6 and 8; estimate products; divide using chunking, with and without remainders; decide whether to use multiplication or division to solve word problems; recognise tenths and equivalent fractions; find one-tenth and several tenths of multiples of 10 and begin to find one-tenth of single-digit numbers | Thousands  Hundreds  Calculate  Product  Integer  Exchange | Use grid method.  Know 3,4,5,6 and 8 times tables.  Divide by chunking.  Make decisions about which methods to use.  Use a fraction wall. Understand a fraction as part of a whole. Add fractions to make a whole. |
| 30 | **MAS** Mental addition and subtraction; **WAS** Written addition and subtraction; **PRA** Problem solving, reasoning and algebra; **WMD** Written multiplication and division; **MMD** Mental multiplication and division  **Revision**  Week 30 focuses on rehearsing and consolidating mental and written calculation skills in addition, subtraction, multiplication and division. | Revise column addition for adding three 3-digit numbers; revise mental strategies for addition; subtract 3-digit numbers using written and mental methods; find change using counting up; check subtraction using addition; multiply numbers between 10 and 40 by 1-digit numbers using grid method; solve division problems just beyond the known tables facts | Thousands  Hundreds  Calculate  Product  Integer  Exchange  Total | Read and write 3 digit numbers.  Use written and mental methods as appropriate.  Relate money to place value.  Use grid method to multiply.  Use multiplication knowledge.  Apply multiplication knowledge to inverse. |